

Enhancement Reclamation Spotlight: Legacy of a Quarry

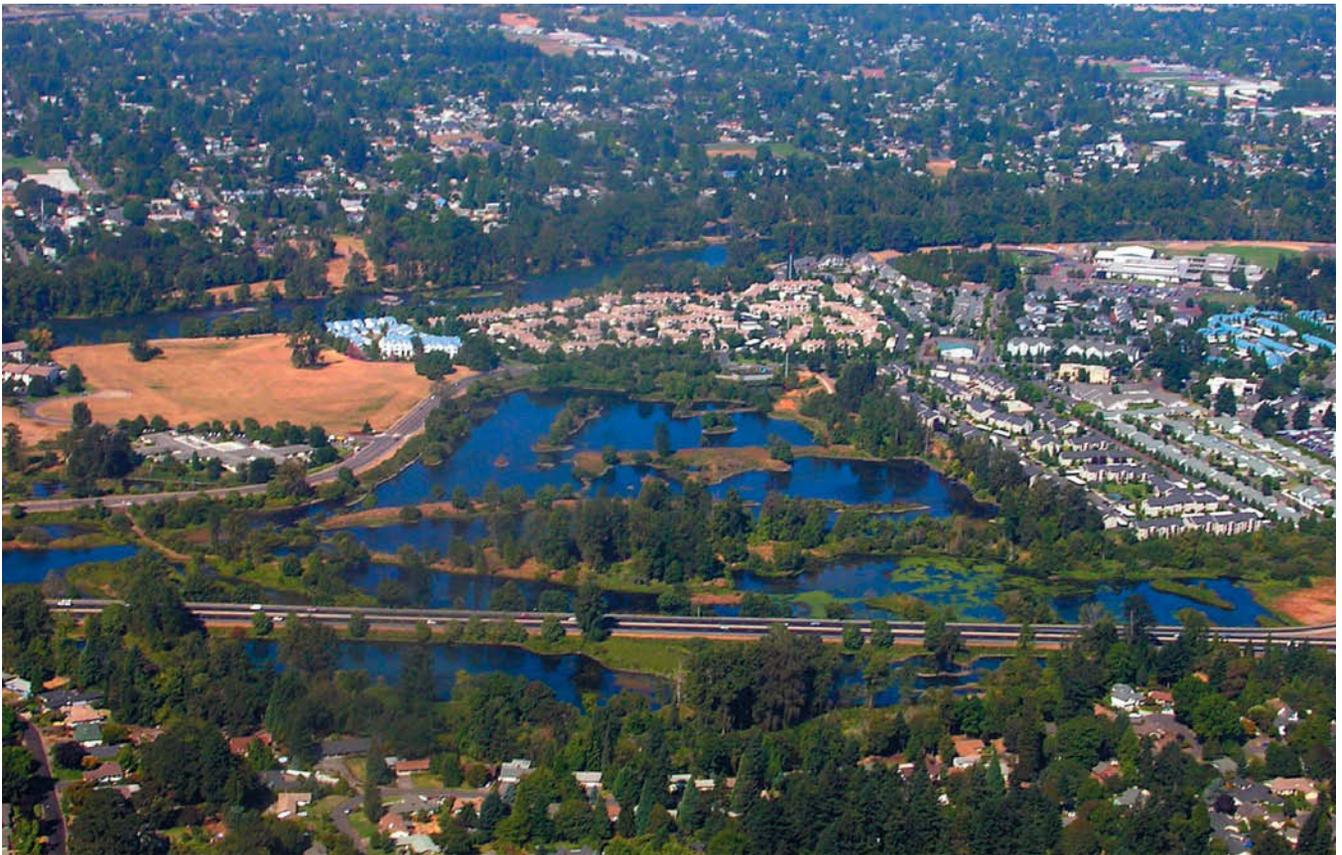


Photo courtesy of the City of Eugene

By Libby Morrison

CAREFUL PLANNING ALLOWED the city of Eugene, Ore., to expand and grow around a former quarry site. The keys to the success of the Delta Ponds enhancement reclamation project were getting the right people involved, establishing funding for improvements and the location of the ponds.

The Delta Ponds is a natural area located in the heart of downtown Eugene, Ore., the third largest city in the state. It sits just off the main

stem of the Willamette River and includes 150 acres of wetlands, ponds, side channels and native plants and is home to both threatened and endangered species— including the Chinook salmon. While a natural gem in its own right, its location makes it particularly unique. The Delta Ponds rests in a dense, urban-metropolitan area and stands out in stark contrast to its neighboring bustling highways, shopping centers and apartment complexes. But, when you're

walking alongside the wetlands as turtles bask in sun, or you're lucky enough to watch a great blue heron fly overhead, it's easy to forget you're downtown at all.

Quarrying Shaped the Landscape

The unique urban location of the Delta Ponds exists thanks to historic aggregate quarrying in the region. Until the late nineteenth century, it was a complex, off-channel ecosystem of the Willamette River and refuge for

local native species, such as salmon, beaver, otter, pond turtles and various migratory birds.

Following World War II, demand for aggregate materials was on the rise due to increased development throughout the U.S., including the city of Eugene. For nearly two decades, in the 1950s and 60s, Eugene Sand and Gravel extracted roughly two million cubic yards of aggregates from the Delta Ponds site that supported the rapid urbanization of the area and construction of major local

highways. Quarrying operations were completed in 1962.

A Vision for the Future

Once operations were ended, the space itself was left unmanaged and saw little alteration for nearly forty years as the ponds were left to the forces of nature. While this provided habitat for some species, it permitted a host of invasive, non-native species that grew to dominate the area. The ponds became hydrologically disconnected from the Willamette River by the quarrying operations.

The land itself changed hands throughout the 1980s as the City of Eugene began purchasing segments from Eugene Sand and Gravel in 1979. At that time, Eugene, a historically agricultural community, experienced significant growth that ultimately encircled the ponds, which steadily became the heart of the city. This placement, combined with the neighboring Willamette River, made it a prime location for enhancement reclamation.

A vision plan was drafted in the early 2000s in which the city outlined four key goals. The city planned to re-establish hydrologic connection between the ponds and the Willamette, improve in-stream and wetland habitat for native species, improve water quality and create recreational and educational opportunities for Eugene's citizens. By 2012, when the project was completed, all of these goals were achieved.

Right People, Right Price, Right Pits

Through diligent planning and coordination, more than a dozen groups ranging from federal and state organizations to local volunteers, combined to bring new life to the Delta Ponds (for a full list of project partners, please see the additional information at the end of this article). These groups have provided continuous support, from early planning through the monitoring that continues today, both physically and financially.

No enhancement reclamation project is cheap, especially one of this



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magnitude with a total cost of over \$9 million. While a steep price tag, success was achievable partly due to the environmental and political climate of the Pacific Northwest. For instance, the Army Corps of Engineers had funds set aside for dam mitigation with which to support habitat restoration projects— in particular those that would increase habitat for threatened and endangered salmonids. The geography of the Delta Ponds fit the bill because they were directly adjacent to the Willamette River, historic rearing grounds for Chinook salmon, and the pits were shallow enough for pond, wetland and off-channel habitat creation.

**Enhancement Reclamation:
A New Take on Old Pits**

The story of the Delta Ponds is one of giving new life to an old pit. Society often views quarrying negatively— as a “necessary evil.” It is certainly necessary, as aggregates are the literal building blocks of society, but classifying quarrying as evil is unwarranted. Enhancement reclamation projects such as the Delta Ponds clearly demonstrate the potential pits hold and their ability to add community value. In this



particular example, government and private groups came together, revitalized a local ecosystem, added critical habitat for regionally and locally important species, and introduced new recreation activities. The social, geologic, and environmental history of each pit is unique, as are its enhancement reclamation options. As society begins to recognize and celebrate the ways aggregate mines can be utilized and transformed, perhaps, in addition to seeing more pits become ponds, we can also begin

changing negative assumptions surrounding the industry.

The New Normal?

The Delta Ponds is not the only site in the Pacific Northwest where this idea is taking hold—it is not even the only one in Eugene. Just ten miles away, at the confluence of the Middle and Coast forks of the Willamette River, another multi-year, multi-million dollar project is underway. The Willamette Confluence Project is another prime

example of successful enhancement reclamation due to local groups coming together. Unique to this case, however, is that conservation groups worked directly with sand and gravel company owners to purchase the land for critical habitat conservation and restoration—but that is another story. While no two enhancement reclamation projects are alike, each one is encouraging because aggregate pits hold so much untapped potential.

More than fifty years after sand and gravel extraction laid the foundation for the Delta Ponds, today there is again a highly functioning ecosystem. Invasive plant species have been removed, and a weir and culvert system installed connecting the system back to the river and also increasing flood control. It is once again home to many species of native flora and fauna, and the salmon have returned. Furthermore, it is also a valuable area for recreation and education. The miles of trails, pedestrian bridges and overlooks grant easy access to the beautiful urban natural area and numerous interpretive signs teach people about its unique history. The local economy has also benefitted from the rejuvenated ponds. A University of Oregon study found that the value of homes near the Delta Ponds increased from 2004, when restoration efforts began, to 2012, when the project was complete. ■

For additional information about the Delta Ponds, please visit The City of Eugene's website (www.eugene-or.gov) for a summary accomplishment report, maps, and more.

About the Author

Libby Morrison completed two Master's degrees at Oregon State University focusing on the enhancement reclamation of aggregate mines. She is the sole proprietor of a small consulting firm, Phase Vision, in Portland, OR. Phase Vision performs mediation and facilitation services for natural resources conflicts and specializes in quarrying-related conflicts.



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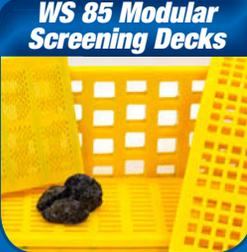
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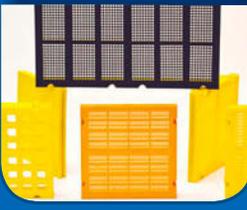
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